

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

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Listing of Claims:

1-16. Canceled.

- 10 17. (Currently amended) A container system which comprises
- (a) a shipping container which
 - (i) can be loaded onto and transported by a ship or a truck,
 - (ii) has a capacity of at least 40 m³, and
 - (iii) has an exterior surface;
 - 15 (b) a respiring biological material which
 - (i) is sealed within the shipping container, and
 - (ii) is surrounded by an inner atmosphere; and
- shipping container which
- ~~(1) has a capacity of at least 40 m³,~~
 - 20 ~~(2) contains a respiring biological material,~~
 - ~~(3) is sealed around the respiring biological material, and~~
 - ~~(4) comprises~~
 - ~~(a) an exterior surface,~~
 - ~~(b) an inner atmosphere within the sealed container and which~~
 - 25 ~~surrounds the biological material, and~~
- (c) a module which
 - (i) was constructed separately from the shipping container,
 - (ii) is within the container, and
 - 30 ~~(iii) (ii)~~ comprises a closed chamber including an internal atmosphere control member (ACM), an inlet for gas and an outlet for gas, the ACM having a surface area greater than 0.65 m² and comprising a first surface and a second surface, the first surface being in direct contact

with the inner atmosphere, and the second surface not being in direct contact with the inner atmosphere, not being part of the exterior surface of the container, and being direct contact with a second atmosphere.

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18. (Currently amended) A container system according to claim 17 which comprises one or more sensors which measure the concentration of at least one gas in the inner atmosphere, pressure-generating means for supplying the second atmosphere gas to the second surface of the ACM, and a metering device
10 for changing the rate at which the second atmosphere is gas can be supplied to the second surface of the ACM in response to input from the one or more sensors.

19-21. Canceled.

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22. (Currently amended) A container system according to claim 17 which comprises a first flexible conduit which connects the inlet of the module to one or more sources of the second atmosphere, and a second flexible conduit which connects the outlet of the module to a gas disposal means.
20 ~~wherein the chamber is a rectangular parallelepiped which comprises two major faces and four minor faces; and in which at least one of the major faces includes an ACM, a first minor face includes at least one inlet for incoming gases, and a second minor face opposite the first minor face includes at least one outlet for outgoing gases.~~

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23. (Currently amended) A container system according to claim 17 wherein the ACM (i) comprises a microporous film having a coating of a side chain crystalline polymer thereon and (ii) has an oxygen P₁₀ ratio, over at least one 10°C range between -5 and 15°C, of at least 1.3. ~~chamber comprises (i) a generally cylindrical surface which comprises the ACM, and (ii) two opposite end faces, one of the end faces including at least one inlet for an incoming atmosphere and the other of the end faces including at least one outlet for an outgoing atmosphere.~~
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24. (Currently amended) A container system according to claim 17 wherein the respiring biological material is packed in a plurality of ACM-containing sealed inner containers.

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25. (Currently amended) A container system according to claim 17 wherein the module comprises first and second internal ACMs, the first ACM being a selective ACM which (i) has an R ratio of at least 3.0, and (ii) consists of a polymeric coating on a porous substrate, the porous substrate being a microporous film or a
10 nonwoven fabric, and the second ACM having an R ratio of 1.0 to 2.3.
~~module comprises two or more ACMs, at least one of the ACMs being a selective ACM and at least one of the ACMs being a nonselective ACM.~~

26. (Currently amended) A container system according to claim 25 wherein
15 the second ACM has an R ratio of 1. ~~selective ACM has an R ratio of at least 2.5, and the nonselective ACM comprises a single relatively large perforation or a plurality of relatively small perforations.~~

27. (Currently amended) A container system according to claim 17 wherein the
20 module comprises a first chamber comprising a first internal ACM an ACM having a first R ratio of 1 to 2.3 and a second chamber comprising a second internal ACM, the first ACM being a selective ACM which (i) has an R ratio of at least 3.0, and (ii) consists of a polymeric coating on a porous substrate, the porous substrate being a microporous film or a nonwoven fabric, and the second ACM having an R ratio of
25 1.0 to 2.3. ~~an ACM having a second R ratio which is higher than the first R ratio.~~

28. (Currently amended) A container system according to claim 27 wherein the
second ACM has an R ratio of 1. ~~claim 17 wherein the inner atmosphere contains at least 3 % by volume of CO₂ and the second atmosphere contains less than 3 % by~~
30 ~~volume of CO₂; and the second atmosphere contains at least 15% by volume of O₂ and the inner atmosphere contains at least 15% by volume of O₂.~~

29. (Canceled)

30. (Currently amended) A container system according to claim 17 ~~claim 28~~ wherein the second atmosphere flows through the chamber at a rate of 5-500 cfm.

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31. (Currently amended) A container system according to claim 17 ~~claim 28~~ wherein the rate at which the second atmosphere flows through the chamber is 0.0025 to 0.25 ft³ per in² of ACM exposed to the second atmosphere.

10 32. (Currently amended) A container system according to claim 17 wherein the chamber is selected from

(i) a rectangular parallelepiped which comprises two major faces and four minor faces; and in which at least one of the major faces includes an ACM, a first minor face includes at least one inlet for the second atmosphere, and a second minor face opposite the first minor face includes at least one outlet for an outgoing atmosphere, and

(ii) a chamber comprising a generally cylindrical surface which comprises the ACM, and two opposite end faces, one of the end faces including at least one inlet for the second atmosphere and the other of the end faces including at least one outlet for an outgoing atmosphere.

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33. (Currently amended) A container system according to claim 17 wherein the ACM consists of a microporous film having a single polymeric coating thereon.

25 34. (Currently amended) A method of loading a container, said container being a shipping container which has a capacity of at least 40 m³, and which can be loaded onto and transported by a ship or a truck, the method comprising making a shipping container as defined in claim 17 the method comprising

(A) providing said shipping container,

30 (B) loading a placing the respiring biological material into the in the container;

(C) ~~after step (A)~~ after step (B), placing the module in the container a module which

(a) was constructed separately from the container, and

(b) comprises (i) a closed chamber comprising an internal atmosphere control member (ACM), (ii) an inlet and (iii) an outlet, the ACM having a surface area greater than 0.65 m² and comprising a first surface and a second surface, the first surface being in direct contact with a first atmosphere surrounding the respiring biological material, and the second surface not being in direct contact with the first atmosphere, not being part of the exterior surface of the container, and being in direct contact with a second atmosphere within the closed chamber;

(D) ~~(C)~~ connecting the inlet of the module to a first conduit which is connected to one more sources of the second atmosphere; gas; and

(E) connecting the outlet of the module to a second conduit which provides a gas disposal means; and

~~(F)~~(E) sealing the container.

35. (Currently amended) A method according to claim 34 wherein each of the first and second conduits is flexible. ~~The respiring biological material is green bananas.~~

36. (Currently amended) A method according to claim 34 wherein the ACM has an R ratio of least 3.0. ~~claim 35 wherein the module comprises two or more ACMS, at least one of the ACMS being a selective ACM, and at least one of the ACMS being a nonselective ACM.~~

37. (Canceled)

38. (New) A method according to claim 34 wherein the ACM (i) comprises a microporous film having a coating of a side chain crystalline polymer thereon and (ii) has an oxygen P₁₀ ratio, over at least one 10°C range between -5 and 15°C, of at least 1.3.

39. (New). A method according to claim 34 wherein the module comprises first and second internal ACMs, the first ACM being a selective ACM which (i) has an R ratio of at least 3.0, and (ii) consists of a polymeric coating on a porous substrate, the porous substrate being a microporous film or a nonwoven fabric, and the second ACM having an R ratio of 1.0 to 2.3.
40. (New) A method according to claim 34 which includes the step of providing within the container an auxiliary closed chamber which is different from the closed chamber of the module, and which comprises an auxiliary internal atmosphere control member (ACM) having an R ratio of 1.0 to 2.3, an auxiliary inlet for gas, and an auxiliary outlet for gas, the auxiliary ACM comprising a first surface and a second surface, the first surface being in direct contact with the first atmosphere, and the second surface not being in direct contact with the inner atmosphere, not being part of the exterior surface of the container, and being in direct contact with an auxiliary second atmosphere.
41. (New) A method according to claim 40 wherein the auxiliary ACM has an R ratio of 1.
42. (New) A method according to claim 40 wherein the auxiliary ACM comprises a porous sheet material which does not have a polymer coating thereon, the porous sheet material being a nonwoven fabric or a microporous film.
43. (New) A method according to claim 40 wherein the respiring biological material is packed in a plurality of ACM-containing sealed inner containers.
44. (New) A method according to claim 34 which includes the steps of providing one or more sensors which measure the concentration of at least one gas in the atmosphere surrounding the biological material, and

providing primary pressure-generating means for supplying the primary second atmosphere to the second surface of the primary ACM at a rate which can be changed in response to input from the one or more sensors.

- 5 45. (New) A method of unloading a container system which comprises.
- (a) a shipping container which
 - (i) can be loaded onto and transported by a ship or a truck,
 - (ii) has a capacity of at least 40 m³, and
 - (iii) has an exterior surface;
 - 10 (b) a respiring biological material which
 - (i) is sealed within the shipping container, and
 - (ii) is surrounded by an inner atmosphere; and
 - (c) a module which
 - (i) was constructed separately from the shipping container,
 - 15 (ii) is within the container, and
 - (iii) comprises a closed chamber including an internal atmosphere control member (ACM), an inlet for gas and an outlet for gas, the ACM having a surface area greater than 0.65 m² and comprising a first surface and a second surface, the first surface being in direct contact
 - 20 with the inner atmosphere, and the second surface not being in direct contact with the inner atmosphere, not being part of the exterior surface of the container, and being direct contact with a second atmosphere;
- the method comprising the steps of
- 25 (A) unsealing the container,
 - (B) after step (A), removing the module, and
 - (C) after step (B), unloading the respiring biological material from the container.

- 30 46. (New) A method according to claim 45 wherein the module comprises a first flexible conduit which connects the inlet of the module to one or more sources of the

second atmosphere, and a second flexible conduit which connects the outlet of the module to a gas disposal means.

5 47. (New) A method according to claim 45 wherein the ACM has an R ratio of least 3.0.

10 48. (New) A method according to claim 45 wherein the ACM (i) comprises a microporous film having a coating of a side chain crystalline polymer thereon and (ii) has an oxygen P_{10} ratio, over at least one 10°C range between -5 and 15°C, of at least 1.3.

15 49. (New). A method according to claim 45 wherein the module comprises first and second internal ACMs, the first ACM being a selective ACM which (i) has an R ratio of at least 3.0, and (ii) consists of a polymeric coating on a porous substrate, the porous substrate being a microporous film or a nonwoven fabric, and the second ACM having an R ratio of 1.0 to 2.3.

20 50. (New) A method according to claim 45 wherein the sealed container includes an auxiliary closed chamber which is different from the closed chamber of the module, and which comprises an auxiliary internal atmosphere control member (ACM) having an R ratio of 1.0 to 2.3, an auxiliary inlet for gas, and an auxiliary outlet for gas, the auxiliary ACM comprising a first surface and a second surface, the first surface being in direct contact with the first atmosphere, and the second surface not being in direct contact with the first atmosphere, not being part of the exterior surface of the container, and being in direct contact with an auxiliary
25 second atmosphere.

30 51. (New) A method according to claim 50 wherein the auxiliary ACM has an R ratio of 1.

52. (New) A method according to claim 50 wherein the auxiliary ACM comprises a porous sheet material which does not have a polymer coating thereon, the porous sheet material being a nonwoven fabric or a microporous film.

- 5 55. (New) A container system which comprises.
- (a) a shipping container which
 - (i) can be loaded onto and transported by a ship or a truck,
 - (ii) has a capacity of at least 40 m³, and
 - (iii) has an exterior surface;
 - 10 (b) a respiring biological material which
 - (i) is sealed within the shipping container, and
 - (ii) is surrounded by an inner atmosphere; and
 - (c) a module which
 - (i) was constructed separately from the shipping container,
 - 15 (ii) is within the container, and
 - (iii) comprises a primary closed chamber including a primary internal atmosphere control member (ACM), a primary inlet for gas and a primary outlet for gas, the primary ACM having a surface area greater than 0.65 m² and comprising a first surface and a second surface, the first surface being in direct contact with the inner atmosphere, and the second surface not being in direct contact with the inner atmosphere, not being part of the exterior surface of the container, and being direct contact with a primary second atmosphere, and
 - 20 (d) an auxiliary closed chamber which
 - (i) is within the container,
 - (ii) is separate from the module, and
 - (iii) comprises an auxiliary internal atmosphere control member (ACM), an auxiliary inlet for gas and an auxiliary outlet for gas, the auxiliary ACM having an R ratio of 1.0 to 2.3 and comprising a first surface and a second surface, the first surface being in direct contact with the inner atmosphere, and the second surface not being in direct
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contact with the inner atmosphere, not being part of the exterior surface of the container, and being in direct contact with an auxiliary second atmosphere.

- 5 56. (New) A container system according to claim 55 which further comprises
- (e) one or more sensors which measure the concentration of at least one gas in the inner atmosphere,
 - (f) primary pressure-generating means for supplying the primary second atmosphere to the second surface of the primary ACM at a rate which can be
 - 10 changed in response to input from the one or more sensors, and
 - (g) auxiliary pressure-generating means for supplying the auxiliary second atmosphere to the second surface of the auxiliary ACM.

- 15 57. (New) A container system according to claim 55 wherein the auxiliary ACM has an R ratio of 1.

58. (New) A container system according to claim 55 wherein the auxiliary ACM comprises a porous sheet material which does not have a polymer coating thereon, the porous sheet material being a nonwoven fabric or a microporous film.

- 20 59. (New) A container system according to claim 55 wherein the primary closed chamber comprises a second internal atmosphere control member (ACM), the second ACM having an R ratio of 1 to 2.3, and comprising a first surface which is in direct contact with the inner atmosphere and a second surface which is not in direct
- 25 contact with the inner atmosphere, is not part of the exterior surface of the container, and is in direct contact with the primary second atmosphere.

60. (New) A container system according to claim 55 wherein the module comprises (1) a first flexible conduit which connects the primary inlet to one or more
- 30 sources of the primary second atmosphere, and (2) a second flexible conduit which connects the primary outlet to a gas disposal means.